

5. The method of claim 1, wherein the progress tracking information stored in the remote database is secured using disk encryption for each zone in the remote database.

6. The method of claim 1, wherein the remote database is a network-based storage service apportioned into a plurality of zones storing different data, each zone limited in scope to any combination of at least one of an organization identifier, a class identifier, a user identifier, a context identifier, or a hand-out identifier.

7. The method of claim 6, wherein the progress tracking information is stored in a personal zone within the network-based storage service, the personal zone associated with a particular user identifier for a user account associated with a client application installed on the client device.

8. The method of claim 1, wherein the metadata includes a reference to the progress tracking information in the remote database as well as at least one of a class identifier, a user identifier, or a context identifier.

9. The method of claim 8, wherein the context identifier is included in the metadata.

10. A method for processing progress tracking information utilizing one or more services available over a network, the method comprising:

receiving metadata corresponding to progress tracking information from a plurality of client devices;

generating a data structure that includes a subset of the metadata received during a tracking window for a particular organization identified by an organization identifier;

processing the data structure to generate sorted metadata based on a class identifier and a context identifier; and
storing the progress tracking information corresponding to the sorted metadata in a memory accessible by a service.

11. The method of claim 10, further comprising:
enriching the metadata to include additional information.

12. The method of claim 11, wherein the additional information includes at least one of an organization identifier, a directory service identifier, or a hand-out identifier.

13. The method of claim 10, wherein the one or more services include at least one of an on-ramp service, an enrichment service, a distributed file system, an aggregator service, an off-ramp service, and a deposit service.

14. A system for tracking progress of students assigned one or more digital hand-outs via a client application, the system comprising:

one or more server devices connected to a network and configured to implement services for tracking a progress of students completing the one or more digital hand-outs, the services including:

a hand-out service that enables the one or more digital hand-outs to be created and linked to contexts associated with one or more applications installed on at

least one client device, wherein each application in the one or more applications implements at least a portion of a software framework; and

a progress pipeline including a plurality of services configured to process progress tracking information generated by the one or more applications installed on the at least one client device.

15. The system of claim 14, wherein the progress pipeline includes a first service configured to:

receive metadata corresponding to progress tracking information;

de-reference a user identifier included in the metadata by replacing the user identifier with a directory service identifier or an internal identifier;

determine whether progress tracking is enabled or disabled for one of the user identifier, the directory service identifier, or the internal identifier; and

filter the metadata based on the determining.

16. The system of claim 15, wherein the progress pipeline includes a second service configured to:

enrich the metadata with at least one of an organization identifier, the directory service identifier, the internal identifier, or a hand-out identifier.

17. The system of claim 15, wherein the progress pipeline includes a second service configured to:

retrieve a subset of metadata corresponding with a tracking window from a distributed file system that includes at least one journal node;

generate a data structure that includes the subset of metadata associated with a particular organization identifier included in the subset of metadata;

store the data structure in a storage service; and

push a reference corresponding to the data structure into a queue.

18. The system of claim 15, wherein the progress pipeline includes a second service configured to:

process a data structure to generate sorted metadata based on at least one of a class identifier, a hand-out identifier, a context identifier, the user identifier, the directory service identifier, or the internal identifier.

19. The system of claim 15, wherein the progress pipeline includes a second service configured to:

associate the progress tracking information with a progress identifier associated with one of the user identifier, the directory service identifier, or the internal identifier; and

store the progress tracking information and the progress identifier in a network-based storage service.

20. The system of claim 14, wherein each client device includes a daemon configured to sync data stored in a local database on the client device to a remote database such that the data can be accessed by a second client device.

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